

\$113 million
saved, avoided

Combined
transmission rate

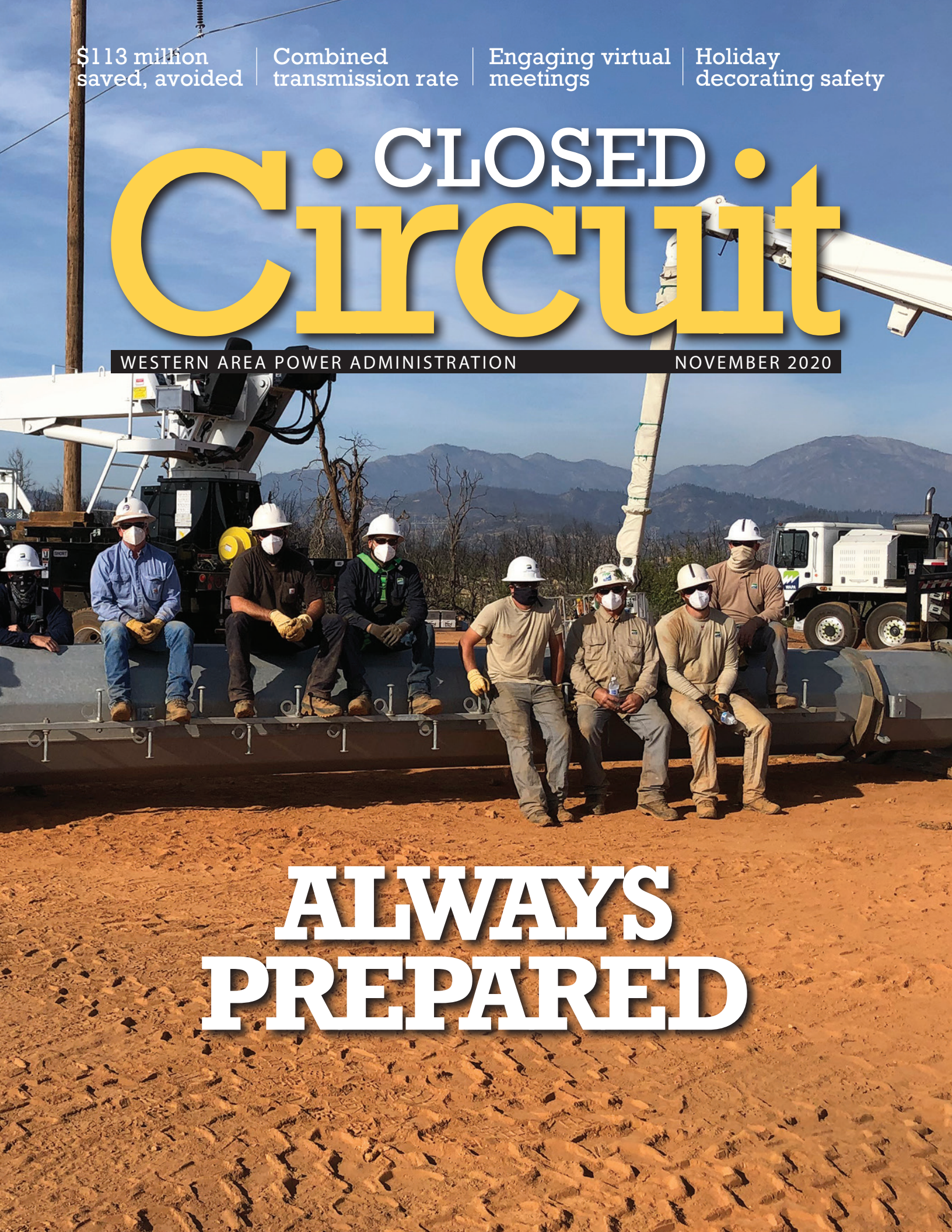
Engaging virtual
meetings

Holiday
decorating safety

• CLOSED • Circuit

WESTERN AREA POWER ADMINISTRATION

NOVEMBER 2020



ALWAYS PREPARED



CLOSED Circuit

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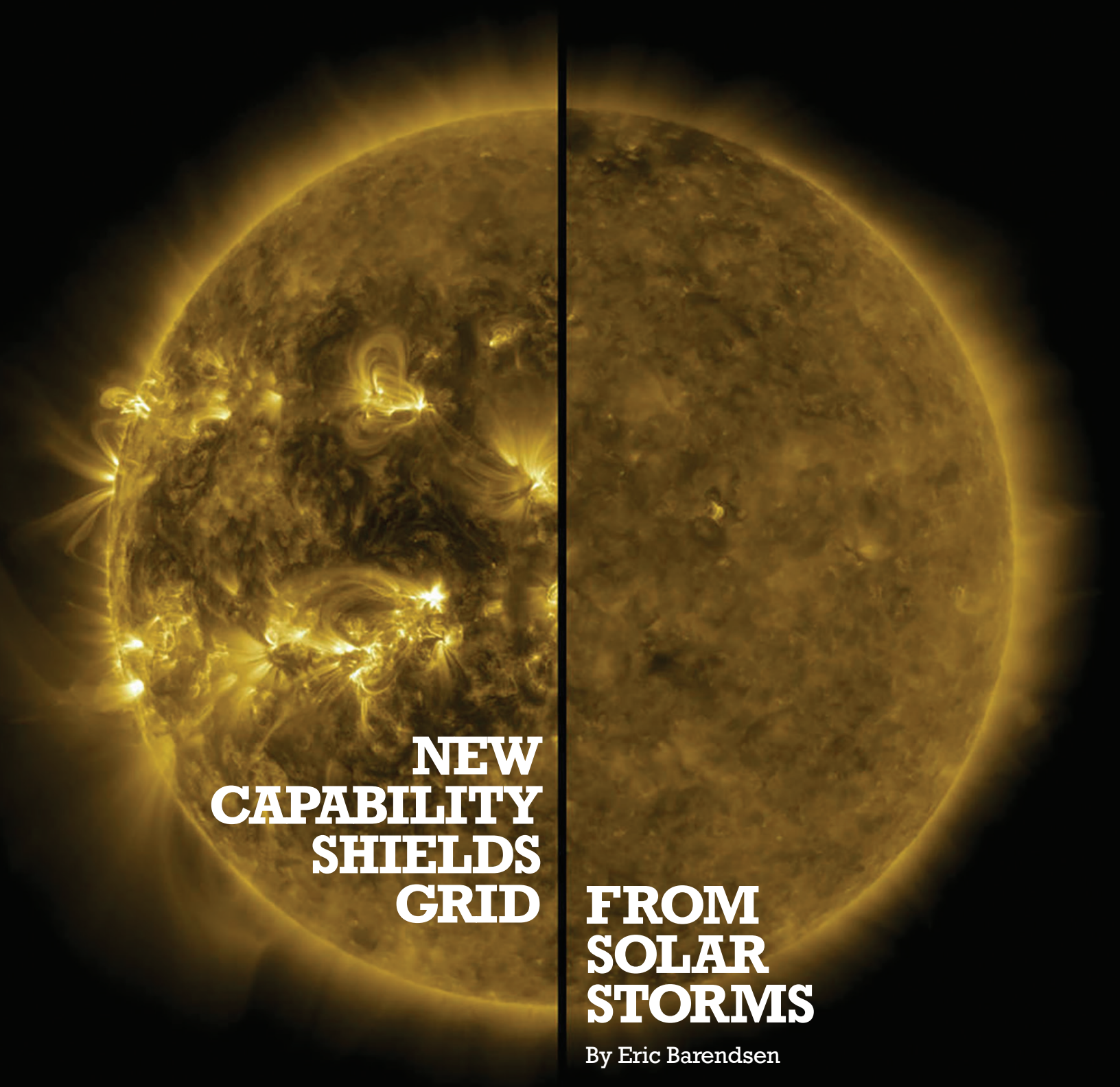
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On the cover

Sierra Nevada line crews install new structures along the Shasta-to-Cottonwood transmission line in Redding, California. Linemen practiced social distancing, donned masks and wore fire-retardant clothing during the work. (Photo by **Matt Monroe**)





NEW CAPABILITY SHIELDS GRID

FROM SOLAR STORMS

By Eric Barendsen

Scientists call it “Solar Cycle 25,” and WAPA is getting ready for it. According to a recent NASA press release, researchers believe that the sun passed its cyclical minimum of solar activity in December 2019, and a new period of potential solar outbursts has begun.

This split image shows the difference between an active sun during solar maximum and a quiet sun during solar minimum. December 2019 marked the beginning of Solar Cycle 25 and the sun’s activity will once again ramp up until solar maximum, predicted for 2025. (Photo courtesy of the National Aeronautics and Space Administration Solar Dynamics Observatory)

continued on Page 2

Space weather, predominantly affected by varying solar activity, such as solar flares, can have dramatic impacts on Earth, including on the electrical transmission system.

WAPA recognizes the unique risks that space weather poses to its transmission assets and its customers and is taking proactive steps to remain resilient in the face of an unpredictable sun.

Dark matters

Space weather events can cause geomagnetic disturbances, or GMDs, in the Earth's magnetic field that induce electric currents in grounded transmission equipment. These geomagnetically induced currents, or GICs, can cause physical damage to transformers and protection systems, as well as stress the transmission system's ability to compensate for abnormal, widespread voltage dips that can compromise electrical service delivery to customers.

"GMD is a tough scientific and engineering challenge," said Electrical Engineer **Chris Colson**. "Solar storms are impossible for earthlings to predict, but we have observed the sun's ability to disrupt our modern electric power system, most significantly during the October 2003 'dark Halloween'

solar storm, and earlier during the March 1989 'Quebec blackout' event."

In both cases, tens of thousands of customers lost power and millions of dollars' worth of equipment was damaged. Major solar storms, referred to as Carrington-level events after a record-setting 1859 geomagnetic disturbance, occur regularly.

"We need to be prepared," Colson said. "The last Carrington-level solar storm occurred in July 2012 and, thanks to Earth's orbital position at the time, missed us by a mere nine days."

Keeping current

WAPA has been involved in preparing for and mitigating possible GMD effects since the beginning of the 21st century. By partnering with the Electric Power Research Institute's SUNBURST program, which collects diverse GMD-related data across the U.S., WAPA is contributing to a body of industry data that can help scientists model GICs, forecast when they will happen and develop ways to protect the grid.

The National Oceanic and Atmospheric Administration's Space Weather Prediction Center uses observations from geostationary satellites along with complex mathematical models to develop short-term fore-

casts of geomagnetic effects on Earth, similar to the way in which terrestrial weather forecasts are made.

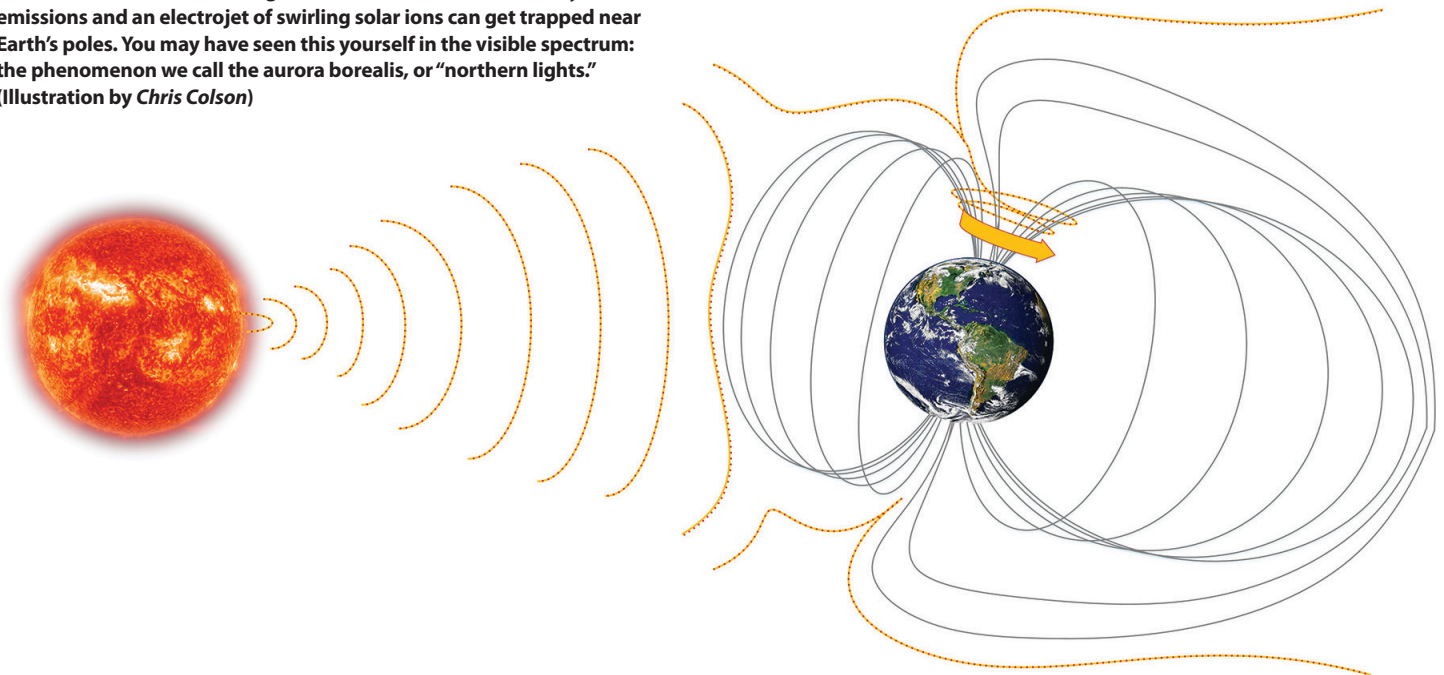
The scientific research that SUNBURST has contributed has helped utilities better understand the nature of geomagnetically-induced impacts to the power system and employ the SWPC forecasts to prepare for solar storms.

"While the electric power industry has known about GMD effects for decades, only recently have high-fidelity tools become available that allow us to simulate and assess the effects on the interconnected transmission system," said Colson. "These tools along with real-time monitoring give us on Earth a fighting chance to protect the integrity of the power system during solar storms."

Northern exposure

Upper Great Plains is particularly susceptible to GMDs due to being farther north than the other WAPA regions. Because of the potential damage that can be caused by these currents and the persistent risk that UGP faces, WAPA has developed a GIC-monitoring system to alert system operators and gather data ahead of and during GMD events.

Illustration of how Earth's magnetic field becomes deformed by solar emissions and an electrojet of swirling solar ions can get trapped near Earth's poles. You may have seen this yourself in the visible spectrum: the phenomenon we call the aurora borealis, or "northern lights." (Illustration by *Chris Colson*)





A transformer grounding cable is monitored for induced electric currents. (Photo by Elijah Maska)

“Given our northern footprint and the makeup of the transmission we operate, it was clear that UGP had the strongest vulnerability, and we needed a cost-effective approach to provide GIC operational awareness,” said Transmission Planning Manager **Gayle Nansel**. “This approach puts WAPA in a well-positioned place as we advance our insight into planning and operating reliably during these solar disturbances.”

Severe space weather events can cause the Earth’s magnetic field to wobble on a massive scale, leading to GICs flowing through power transformers as currents that are undetectable with conventional transmission system instrumentation.

The UGP monitoring system detects these rapidly changing currents directly at the point where the power transformer ties into the grounding system of WAPA’s substation, giving the control center operators instant awareness of voltage dips and

other threats to transmission system equipment.

Ground control

UGP conceived, designed and implemented this GIC-monitoring solution with the primary objective of providing real-time situational awareness of GMD impacts on the transmission system to control center operators. UGP has equipped two substations to gather data on GICs to better inform dispatchers of the timing, magnitude and location of these events.

The monitoring device is a highly sensitive current transformer installed in the neutral section of an extra-high-voltage transformer. This sends a GIC measurement, accurate to one-tenth of an amp, to the supervisory control and data acquisition system that operators use to run the grid. If an induced current beyond a set limit begins to travel through the transformer, the system operator is notified.

The Southwest Power Pool Reliability Coordinator also monitors for unusual activity and will send a GMD alert to any affected control centers.

“That alert, combined with the GIC-monitoring device outputs, will allow the system operator to see in real time if the GMD is directly affecting the power system and take appropriate actions according to our operating procedure,” said Power System Dispatcher **Seth Bury**.

Adaptive measures

Armed with the best information, transmission system dispatchers can take immediate action to prevent equipment from overheating, preserve operating service margins and continue to ensure reliable service to customers.

The system also assists UGP in complying with North American Electric Reliability Corporation standards and annual NERC GMD Section 1600 data requests. Based on the success of the initial GIC-monitoring deployment, WAPA intends to widen the network for the benefit of the organization’s other regions, as well as its neighbors and partners.

In developing the in-house system, WAPA used as many existing communication and control assets as possible to minimize costs. Given the modest implementation and operating costs to date, the WAPA solution will yield approximately \$300,000 over 10 years in avoided costs—compared to the next-least-expensive alternative—for just a handful of installations. As the WAPA network of monitoring equipment grows, so will the cost savings.

This proactive capability demonstrates an immediate and relevant benefit to WAPA’s transmission customers and helps the organization continue to lead the way in responding to emerging challenges in the energy frontier.

“Having a cost-effective way to provide this important information to our system operators is just one example of how our employees strive to ensure our customers get the biggest bang for their dollar,” said Acting Senior Vice President and Upper Great Plains Regional Manager **Lloyd Linke**. □

Note: Barendsen is a public affairs specialist.

DSW, CRSP MC explore combined rate

By Lisa Meiman

The Colorado River Storage Project Management Center and the Desert Southwest region have embarked on a joint initiative with their customers to explore the feasibility and desire for a combined transmission rate across their footprints.

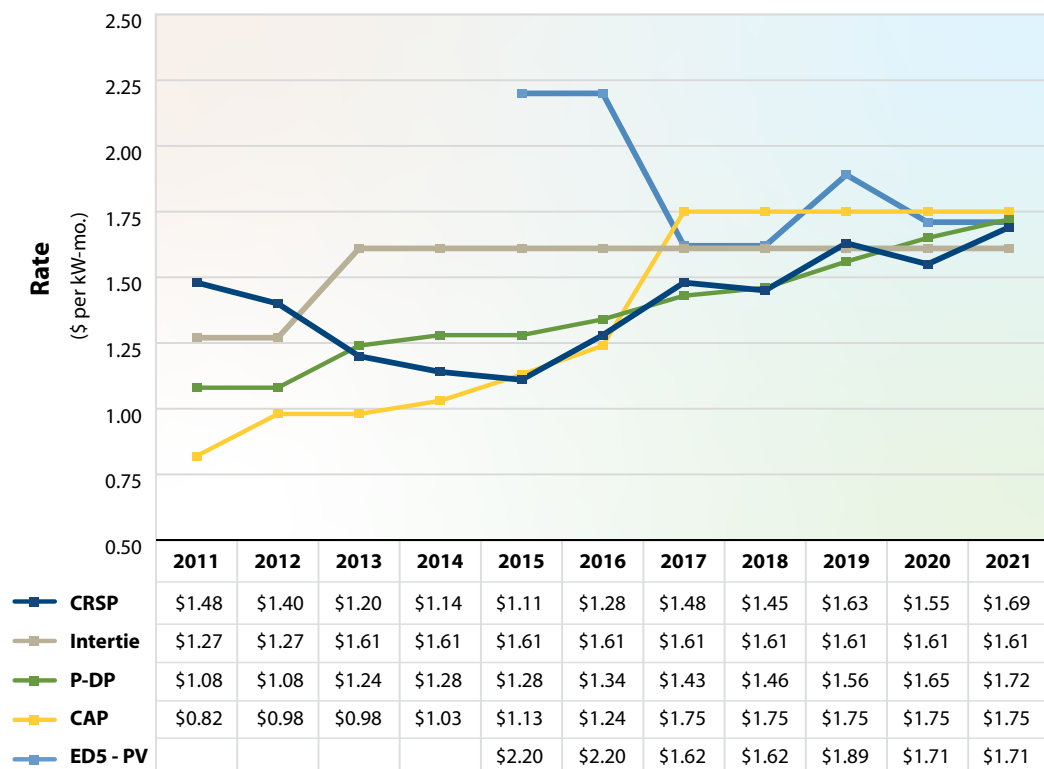
“Between the two regions, we operate a huge transmission system,” said Program and Regulatory Advisor **Brent Osiek**. “It goes from the Rocky Mountains to the desert and everything in between. We have to ask ourselves, why wouldn’t we tie those two together? This initiative could improve transmission access for customers and ourselves.”

The initiative includes the transmission systems of the Parker-Davis

Project, the Pacific Northwest-Southwest Intertie Project, the Central Arizona Project, the Electrical District 5-to-Palo Verde Hub Project and the Colorado River Storage Project.

The idea is not a new one for DSW and its customers, who have explored combining the transmission rates for its four projects in the past and identified a combined transmission rate as an important activity for 2020. The CRSP transmission system has now

Rate Convergence 2011-2021



Combined Transmission Rate Footprint

been included in the discussion as the rates for all five projects have converged and are now closely aligned. DSW and CRSP also share several customers.

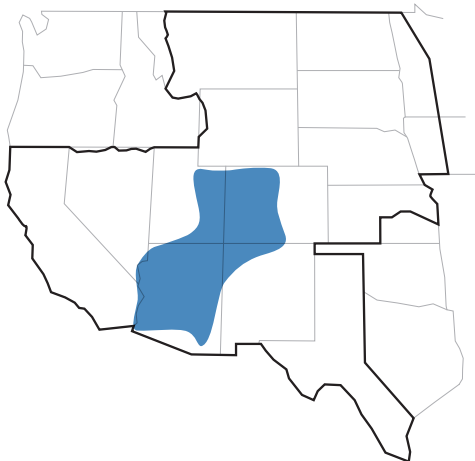
"It's important to remember that this initiative started originally as an idea from DSW customers several years ago," said Project Manager **Scott Lund**. "Customers are forward thinking and see this as an opportune time to eliminate barriers to transmission use. The idea got all the better with the inclusion of CRSP."

The goal of the effort is to improve efficient and flexible transmission use by permitting more efficient scheduling and use of a large segment of WAPA's transmission system; providing rate stability while ensuring transmission cost allocations are appropriate for federal projects; reducing administrative expenses for WAPA to manage five different transmission rates; and eliminating rate pancaking from one WAPA transmission project to another.

Eliminating rate pancaking is of particular interest to employees and customers. Rate pancaking occurs when power crosses multiple transmission systems, each system adding a new rate to the bill. Rate pancaking can get expensive and charging two WAPA rates, including to itself with interproject purchases, doesn't make much sense, Osiek commented.

Improving flexibility in preparation for an uncertain future is also a big driver for customers and WAPA alike.

"Conceptually, there is so much change coming," said Osiek. "Organized markets are coming. This gives WAPA an opportunity to figure out things internally and what makes the best sense for the customers and the projects. Although this effort is market agnostic, it is somewhat informed by those changes around us. When we do get into a market environment, we come in with a position with power when we are all aligned."



Customer collaboration, input key to moving forward

CRSP MC and DSW began discussing the effort with their customers in March and held a customer meeting April 27 to introduce the project to customers and receive initial feedback.

"We have a great amount of customer support so far in this effort," said Lund. "We see project and geographic differences, but we have customers that cross those artificial boundaries and their interests are the same. Customers aren't constrained by our definitions."

"Customers see us as one organization," Osiek agreed. "We have put up artificial barriers internally, doing things differently depending on what project we are working on. And the question we have to ask is why. Do those barriers still make sense in this day and age?"

On Sept. 24, CRSP and DSW held their first work group meeting on the initiative with customers. The meeting was largely devoted to discussing a preliminary transmission rate design and revenue-sharing methodology.

Customers expressed interest in continuing discussions as well as scheduling additional meetings about operational issues. Following the meeting, WAPA posted its presentation along with a sample rate-calculation spreadsheet for customers to review.

"It went well," said Osiek. "We were pleasantly surprised by the amount of customer engagement and curiosity about this. They had good questions. There are varying levels of support right now. Customers are thinking about opportunities, about what they could use it for."

WAPA is holding additional meetings with customers to answer questions and gain insight and feedback. Customers are already reaching out to their points of contact in the DSW and CRSP offices to discuss areas of specific interest or concern.

"We have appreciated a broad range of questions and input from customers so far," said Lund. "They are thinking beyond their entity to how this could work as a whole. Customers want to learn about operational, financial, contractual and legal changes, among others. They are beginning to consider how to take advantage of the change today and how they could take advantage of this change tomorrow in a new construct."

If CRSP and DSW determine a combined rate is beneficial, the tentative plan is to begin a formal rate-making process in 2021 with an effective date of Oct. 1, 2021.

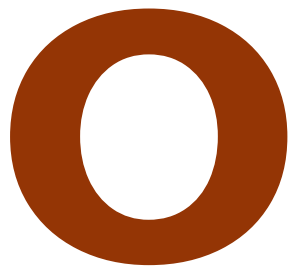
"The dynamics of transmission use are changing," said Osiek. "The era of large transmission contracts for decades-long durations is over. Utilities want hyper-flexibility so, for instance, they can send energy from Colorado to California easily. This initiative is one way we can look forward and create flexibility for future operations." □

Note: Meiman is a public affairs specialist.

Read more about the initiative by visiting wapa.gov, **About, Regions, Desert Southwest, Rates, CRSP/DSW Combined Transmission System Rate** and selecting **Combined Rate Brief** or **Participating Projects Fact Sheet**.



Vegetation Management benefits Navajo



n July 7, Desert Southwest vegetation management crews set to work on an interim Integrated Vegetation Management project along the Navajo-to-Long House Valley 230-kilovolt transmission line in Arizona. The work focused on vegetation within the line's right of way.



In the process of managing vegetation within the transmission line's right of way, crews were able to provide the Navajo Nation with useful firewood. (Photo by Steve Narolski)

“ Their efforts have enabled us to help maintain WAPA’s core mission under the extraordinary weather and wildfire danger that all of DSW has seen this season. Without their efforts to enable IVM projects to occur, DSW would have surely lost multiple circuits this year to wildfires. ”

According to the Environmental Protection Agency, IVM is generally defined as “the practice of promoting desirable, stable, low-growing plant communities—that will resist invasion by tall growing tree species—through the use of appropriate, environmentally sound, and cost-effective control methods. These methods can include a combination of chemical, biological, cultural, mechanical and/or manual treatments.”

The EPA goes on to specify that poorly managed vegetation and overgrowth, on rights of way in particular, can result in service disruption, worker endangerment, forest fires, erosion and pollution.

The work DSW performed in July involved hand-cutting incompatible vegetation and trimming trees as necessary to minimize vegetative threats to the safety, security and reliability of the transmission system.

“The prescription called for the removal and chipping of incompatible vegetation in the wire zone or essentially the area directly below the circuit,” said Vegetation Program Manager **Steve Narolski**. “We targeted vegetation that threatened clearance to WAPA conductors or presented a fuel ladder, where flame lengths, heat or smoke could impact reliability in the case of a wildfire.”

The work followed a July 6 environmental awareness training hosted by Supervisory Environmental Protection Specialist **Sean Berry**.

COVID-19 struck the Navajo Nation as DSW’s Environment team was working with them to identify cultural sites, as well as any potential endangered species or nesting concerns.

Coordinating with the Navajo Nation is crucial when performing work such as this, which resulted in the initiative being split into multiple phases. With the Navajo Government shut down, a special agreement with their president was necessary for this interim treatment to proceed.

“Once Environment has completed the required communications with the Navajo Nation government, the original project’s prescription of mowing the 24 miles west of the Longhouse Valley substation, excluding ‘no mechanical entry’ where needed to protect cultural sites, will be executed,” said Narolski. “We will await the Navajo Nation’s concurrence, and the remainder of the Integrated Vegetation Management work will most likely take place next year.”

In addition to the above considerations, WAPA agreed to salvage and stack usable firewood chunks out of any felled juniper, pinyon pine and ponderosa pine where

feasible. Firewood is a very useful and welcome commodity in the Navajo Nation.

“The plan was to stack up the salvaged firewood and send a list of their locations to the Navajo Nation, and then the tribal elders would come out later and collect the wood,” said Narolski. “In reality, the elders had already learned about this and were actively collecting the firewood as quickly as our contractor cut it!”

In a few areas along the right of way, access restrictions prevented the crew from bringing the chipper with them while they worked. In these areas, the felled trees were chopped up and scattered.

Narolski returned to the area to inspect the work the following week.

“I want to thank Sean and the Environment staff for working to enable the interim treatment, giving WAPA and its customers some peace of mind toward fireproofing this specific circuit,” he said. “Their efforts have enabled us to help maintain WAPA’s core mission under the extraordinary weather and wildfire danger that all of DSW has seen this season. Without their efforts to enable IVM projects to occur, DSW would have surely lost multiple circuits this year to wildfires.” □

RM pilot project meets generation swings

The Rocky Mountain region is participating in a pilot program designed to meet swings in generation within the Western Area Colorado-Missouri, or WACM, Balancing Authority. The program—a partnership between WAPA and Tri-State Generation and Transmission Association—allows WACM to use Craig Powerplant in Craig, Colorado, as a source of power in the case of system disruption or generation shortfall.



The pilot project is part of the BA Optimization effort, which has the ultimate goal of more efficiently running BAs. If it is successful, similar initiatives may be introduced elsewhere in WAPA's 15-state footprint.

WACM has a significant amount of variable energy sources—a total of 477.31 megawatts of wind and solar—within its BA area. Tri-State contributes the majority of that total with 292 MW of wind power and 26.49 MW of solar power; that's 318.49 MW from Tri-State in all. What's more, the utility plans to add another 104 MW of wind power before the end of this year and an additional 345 MW by the end of 2021, with other customers planning to add 52.5 MW.

"With all of that said, it is becoming more challenging to run the BA as efficiently as possible," said Supervisory Power System Dispatcher **Marc Desmarais**.

Desmarais is the reliability operations supervisor for the dispatchers in Loveland, Colorado. His team manages Craig Powerplant's participation in the pilot.

"As people may or may not know, wind and solar are not a steady, constant source of energy, and the BA has to make up any shortfalls in real time," Desmarais continued. "The BA has been proactively looking for energy resources to supplement wind and solar resources—their prime movers—when they are not available."

Craig Powerplant consists of three coal-fired units. These make up the Yampa Project, which is owned by Tri-State and four other regional utilities. Tri-State owns Unit #3, which is the

only unit in this pilot program that may provide energy to WACM BA.

"The other two units are owned by other utilities, and there would be potential to create confusion if those two units were used," said Desmarais. "Since Tri-State had sole ownership of Unit #3, Unit #3 was the logical choice."

He explained that the pilot program arose from curiosity regarding Craig Powerplant and what Tri-State's vision for the future of that plant might be.

"WAPA saw an opportunity to partner with Tri-State and come to a mutual agreement on how we could help each other out," he said. "Tri-State had capacity to market and WAPA had a need for regulation."

"Regulation" in this context refers to energy and capacity that WACM has purchased from Tri-State.

The longest part of the process involved the contract discussions, including how WAPA would credit Tri-State for the availability and use of the regulation.

"In the end, WAPA and Tri-State settled on 30 MW of up/down regulation," he said.

WAPA began utilizing the regulation on July 1, after the organization's supervisory control and data acquisition, or SCADA, team helped set up transfers that would give WACM the ability to request regulation from Tri-State. WAPA's Operations team has already found significant benefit in having the regulation available and ready to use.

Desmarais emphasized the difference between WACM purchasing regulation from Craig Powerplant and purchasing regulating reserves

as defined by the North American Electric Reliability Corporation.

"Regulating reserves as defined by NERC would be responsive to automatic generation control and a BA Area Control Error," he explained. "That is not what this is. Instead, what WACM purchases from Tri-State is regulation; our operators have to manually input a value into SCADA, which then sends the value to Tri-State to have the utility move the Unit #3 generator in the direction needed."

As an additional bonus, this arrangement allows Tri-State to effectively trade energy with WAPA instead of making payments and reduces strain on WAPA's hydropower.

Unit #3 being available as an extra resource means WACM is able to utilize it before drawing on WAPA's hydropower resources, which keeps the hydropower free for emergency situations.

"As WAPA continues to encourage markets and renewable resources, and looks to the future to optimize not only our BA but everything we do, I believe that Operations will evolve into even more of a cohesive, efficient working group," Desmarais said. "By optimizing ourselves, we in turn optimize our resources, projects and customer costs."

With Southwest Power Pool's Western Energy Imbalance Service market launching in early 2021, Desmarais believes we will soon be seeing even more in the way of innovative solutions and planning.

"We have only touched on the tip of the iceberg of partnerships and efficiencies we can achieve when working together," he concluded. □

CPI program saves, avoids \$113 million in costs

By Aidan Wiese

WAPA's Continuous Process Improvement Program continues to see increasing returns as it adds to and improves the efficiency of the organization.

The CPI program leverages Lean and Six Sigma methodologies and constantly looks for new ways of improving individual processes and components of day-to-day activities at WAPA. In doing so, the CPI program has reported more than \$113 million in saved or avoided costs to date.

Since its inception in fiscal year 2014, 187 processes have been improved, spanning all regions and almost every functional area. In FY 2020, the CPI program saw one Green Belt certified, two CPI projects completed, six process mapping workshops completed, trained 55 Yellow Belts and saved or avoided \$19.8 million in costs.

The CPI program's two Black Belts and 23 matrixed Green Belts help identify improvement opportunities and assist and support employees in everything from small projects that can improve daily processes to more complex, large-scale or organizationwide projects that tackle issues directly aligned with WAPA's strategic goals.

Process improvements come in many varieties, but there are three main categories: CPI projects, Just Do It projects and formal WAPA projects.

To date, projects specifically led by WAPA's team of certified Lean Six Sigma practitioners have avoided approximately \$3.4 million in costs alone.

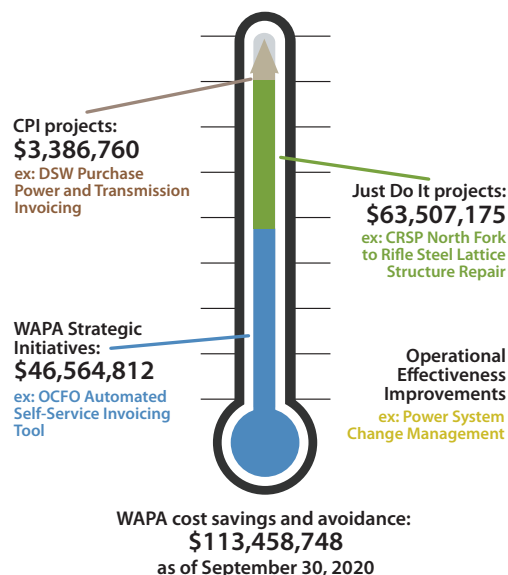
One such project was the WAPA Orders Approval Process improvement, led by a Green Belt in the Colorado River Storage Project Management Center, which involved streamlining the process for reviewing, approving and publishing internal agency orders.

CPI program totals	
CPI projects	\$3.4 million
Just Do It projects	\$63.6 million
Formal WAPA projects	\$46.5 million

Another \$46.5 million in benefits were through formal WAPA projects, which are aligned with *Strategic Roadmap 2024* and the Tactical Action Plan. The CRSP Glen Canyon Long Term Experimental and Management Plan project led by a team of Environment employees in FY 2019 involved engaging with external biologists to develop an operational alternative to an environmental impact study for Glen Canyon Dam. This saved an estimated \$16 million in costs for WAPA and its customers.

While these numbers may seem daunting to those thinking of doing process-improvement work, even small suggestions and changes from employees provide benefits to the organization, potentially freeing up funds or resources that can be used for other purposes.

In fact, one of the main focuses of the CPI program is to encourage employees to look at their jobs and the things they do every day with a continuous process improvement mindset to find opportunities for improvement.



These are Just Do It projects, which are smaller and are primarily led by individual employees who have identified specific ways to improve work processes and increase efficiencies in their daily work. To date, Just Do It projects have saved or avoided \$63.5 million in costs.

One example is the recent Refurbished X-Arm Trailer project in Rocky Mountain. This project resolved a need for a specific type of trailer by refurbishing a trailer WAPA already owned rather than purchasing and modifying a new one. This project alone saved WAPA and its customers approximately \$9,000.

Every CPI project, Just Do It and formal WAPA project is valuable in its own right, and every improvement, no matter how small it may seem, contributes to WAPA's overall mission to bring low-cost, reliable hydroelectric power to more than 40 million Americans. Every contribution adds up over time, and even small day-to-day changes can result in enormous cost savings that benefit WAPA and the customers it serves.

New changes, expansions and additions are on the horizon for WAPA's CPI program. The program developed a Yellow Belt class in FY 2019 to assist in fostering an improvement mindset in employees. So far, three classes have been conducted in which 55 employees participated. A White Belt pilot program is also being introduced this year. □

Note: Wiese is a secretary who works under the MIRACORP contract.

Microsoft Teams is upon us

By Leah Shapiro

You've likely been hearing about it for months. Some of you are already making it a part of your work experience. Some of you are dabbling in the chat and meeting functions. Some of you are unclear on what it is, what it means and how it might affect your corner of the WAPA world. So, let's start at the beginning.

Per Microsoft, Teams is a "persistent chat-based collaboration platform complete with document sharing, online meetings and many more extremely useful features for business communications."

"We've been moving toward the Modern Workplace all year and Teams is the final frontier," explained Information Technology Project Manager **Denise Elkin**. "It's the piece that's going to pull it all together and really change not only the way we work, but the way we think about work."

Teams is the hub of Modern Workplace. Teams will replace some programs that we use, bring together multiple applications for convenience

and offer new ways of working together.

"Teams is a modern technology that will further WAPA's abilities when it comes to living its core value to 'Seek. Share. Partner,'" said Senior Vice President and Chief Information Officer **Mike Montoya**. "Not only does it provide the platform, but it's easy to use and provides the flexibility WAPA's workforce requires right now—the flexibility that will become the standard moving forward."

More than just a chat room

Teams offers a chat function. Much like Skype for Business, Teams offers a status indication that is linked to

your calendar, instant messaging with a WAPA employee or a group of employees, the sharing of screens and attachments, voice and video calls and more.

"Chat's integration with other Microsoft products like OneNote and Office means no more switching between apps throughout your conversation," said Elkin. "It's all right there."

The chat in Teams also offers GIFs and stickers, allowing more personalization in your interactions, which can be especially useful during this maximum telework posture.

Skype will be retired in early 2021. Users will have a few months of overlap, during which they can get used to Teams before Skype goes away.



“Don’t worry,” Elkin said. “You’re not losing any capabilities or convenience. Teams provides all of the same capabilities and more.”

“Phone calls in Teams are clearer and crisper than Skype or WebEx,” said Business Analyst **Jennifer Martin**, who has been part of the Teams pilot. “The chats within Teams are saved, and the search feature has been useful in saving so much time not having to search through emails for what I need.”

Providing flexibility, convenience

Beyond functions and features that may be familiar from Skype, Teams offers multiple ways to streamline collaboration across locations and functions.

Users can coauthor and edit documents in real time; track team chats, notes, files and meetings in a single place; use the built-in Office 365 apps for easy access to SharePoint and OneNote; communicate directly by @mentioning, which tags team members; and use their computers and mobile devices together in online meetings to present live mobile video, share their mobile screen, control PowerPoint and more.

As WAPA moves further into using Teams, IT will provide training materials on these new features.

“I enjoy the simplicity of its all-in-one capability,” said Information Technology Specialist **Alan Padgett**. “It’s easier and more friendly to work inside the one platform. I no longer have to think about the best program to use or worry about whether or not I know how to use a particular tool. It’s all connected.”

Team vs. channel

You’ve read about this streamlined communication. You’ve heard that, with Teams, employees may no longer be so dependent on email. But how? The answer is the “team” in Teams.

Per Microsoft, within Teams, a “team” is a “group of individuals who share work practices, processes and products. Teams are groups that hold meetings, conduct conversations,

collaborate on ideas and share files.” Teams can be public within WAPA or they can be private.

For example, there is a Modern Workplace team that is public and an IT Senior Leadership Team team that is private. There are many other teams out there. Some are for WAPA functions, like Network and Financial Systems, but there could also be a team for a cross-functional or short-term project group, such as a Continuous Process Improvement project. You may receive an invitation to join a team, and you can search public WAPA teams and request to join them.

Within a team, you can schedule and hold meetings, share notes and work on files together. All of the activity is captured, searchable and available for review.

This is how using Teams can lead to less email.

“Drowning in emails can become a thing of the past,” Elkin explained. “Since conversations are held within your team, you no longer have emails and never-ending Reply-All threads. If you need to send a file or a one-line message, you just use the chat.”

And if you—accidentally or otherwise—close Teams, all the information is there when you open it up again.

Within a team, you can have smaller groups called “channels.” Members in channels share projects, tasks or any work focus. Channels hold meetings, conduct conversations, collaborate on ideas and share files. For example, there is a WAYS Support Group team with five channels within it—General, Access Control, Change Enablement, Knowledge and Service Catalog—that work on different items and may include different groups of people.

Teams are for a larger body of people who need to share common information; channels are for subsets within the larger group. You can have a public team and a private channel under it.

What to expect, when

“Truth be told, you’ll just have to dive in and experience Teams to get a

feel for it,” said Elkin. “And you might start small with the chat and the calls and the meetings. It’s going to be a change for people and we know not everyone will enjoy it right away, but we are confident the convenience will win people over.”

A specific cutover date in early 2021 will be identified—to take place over a weekend—at which point any Skype chats will be saved in Outlook’s conversation history, if you kept that default setting, and any meetings that were previously scheduled in Skype will automatically convert to Teams.

“This move to Teams isn’t about bells and whistles and it isn’t simply change for the sake of change,” said Vice President of IT for Infrastructure **Greg Hansen**. “It’s about giving employees technology that meets them where they are. Employees will be able to be more productive and more connected when away from their workstation and WAPA’s network, which should prove especially effective and beneficial in this maximum telework environment.”

More information will follow in the coming months. Stay tuned for articles, videos and training.

“Having an effective collaborative space allows for creativity, communication and efficient decision making,” Montoya said. “Teams makes this possible and is especially useful to WAPA, where employees are already spread across the West and are now mostly working from home. We’ve had some effective and innovative experiences with Teams within the IT community. I look forward to hearing how people begin to leverage Teams across the organization.” □

Note: Shapiro is a management and program analyst.

A job aid titled “Set up and Manage a Teams Meeting” is available in Teams in the “Teams forum” team under the “General” channel. Look for it under the “Files” tab.





Hosting engaging meetings in a virtual world

By Laura Dawson and Jen Neville

The world of meetings has changed from one in which availability was managed by a conference room schedule to one that is limited only by creativity and preparation time. To make the most of virtual meetings, here are 10 tips for getting—and keeping—participant attention.

Set up and promote

Always begin with the meeting's purpose in mind. Before you even schedule it, ask yourself some questions.

"Do I really need a meeting?"

Do you need one-way or two-way communication? Status updates can be shared by posting an update to a website or sending an email. Meetings are best when bringing many perspectives or thoughts together to brainstorm, discuss, debate or decide.

"How long does the meeting need to be?" How many topics are you covering? For longer meetings, plan for breaks or even a series of separate sessions.

"How do I want my team to arrive?" Should each member be prepared to bring their own research to discuss a matter? Do they need information to read or review ahead of time?

"What is the tone of our meeting?" Articulating the energy and presence you want from participants is like the

virtual version of meeting attire. How do you want participants to show up? In addition to the stated goal, knowing whether this is a creative brainstorm, conversational discussion or a time-sensitive focused decision is important to those attending, and it will help them show up ready to engage.

"What does success look like?" Plan how you want the meeting to go both in specific objectives and in building the team, and then set the group up for success.

Protip: In addition to sending out the meeting appointment and expectations, follow up with individual participants to ensure they understand the meeting's importance and preparation. Send a reminder two or three days ahead of time and another one an hour or so before your meeting.

Open with caution

Own the host role. Just like setting up a room before participants arrive, join your meeting early and give

yourself time to set up the virtual space before your participants arrive. This will ensure you can get logged on, address any tech issues, have display materials open, hide sensitive materials and close software that isn't needed during your meeting.

Greet individuals as they arrive and affirm how they'll contribute. This is an opportunity to reinforce the meeting's tone.

Protip: Consider small talk, like you would in a physical meeting. Allow a few minutes at the beginning to enable participants to connect and build rapport before jumping into the agenda. This can also help ensure everyone's audio is working.

Be clear on roles and rules

Orient early and orient often. Acclimate the group by going over the meeting's purpose; participant roles such as who is leading and who is taking notes; and rules for how to interact and engage during the meeting. Tell them how their time will be spent by speaking about each agenda item, rather than flashing it up on a slide for a few seconds.

Protip: Be intentional about inviting them to participate. State whether or not it's okay to interrupt for questions, when and how you expect participation, whether or not individuals should use their camera and whether or not they should stay on mute when not talking.

Plan for mental engagement

Some participants are trying to multitask in your virtual meeting. Use visual and verbal cues to keep their attention.

Use transition slides and timers for discussions or breaks. As with in-person meetings, use multiple forms of media, such as polls, chat windows, videos or shifting speakers to engage participants in the sights, sounds and movement of the meeting. Additionally, when you want a participant to speak, say their name before asking the question or introducing the topic you want them to discuss. This gives individuals their best chance to give their input and participate with ease.

Know your audience. Let those who you need to speak up know ahead of time.

Protip: A facilitator's rule of thumb is to change up visuals every seven minutes. In the virtual setting, do it even more frequently.

Use the tools you have

Learn how to use virtual team tools for meetings; digital interactions such as polls and whiteboards; sharing and collaboration on materials outside of meetings; and website landing pages for orienting new team members and reorienting participants.

WAPA offers a wide variety of tools to support virtual engagement, including Microsoft Teams, OneDrive, SharePoint sites and digital whiteboards.

Protip: In your meeting you are your own best tech support, so plan accordingly. Conduct tests in advance of large meetings. Perform live tests of tools that are new to you and participants. For example, if you're wanting to ensure everyone can use the chat feature in your webinar, ask a simple question for participants to answer, like, "Where are you from?" or "What was your breakfast?"

Carefully craft materials

Do you *need* a presentation slide deck or can you use an image or other visual tool?

For slides, use the 6x6 rule: no more than 6 bullets, and no more than 6 words per line.

Use bright, colorful, round edges and unexpected elements and always share your materials.

Protip: Carefully balance consistency and change. Changing the layout or format of your slides frequently will keep the content interesting, but changes in font size and color can be distracting.

Manage your agenda

You own the timing and pace of your meeting. Just like sticking to a budget, managing time for discussions and agenda items is critical for achieving the meeting's purpose and ensuring that participants feel that their time was well spent.

Use the agenda as a point of reference throughout the meeting to call out discussions that are going long, determining if the item is to be placed on a parking lot, needs a separate meeting or will bump another item. Additionally, make note-taking visual so that everyone can see that their input has been captured.

The key as the host is to be flexible and adjust by asking for more time, if needed. Also, look for agreement on items or activities that can be accomplished another time, after the meeting.

Protip: If you're able to end your meeting a few minutes early, participants will appreciate the break before their next meeting.

Show appreciation

Timely positive feedback is a virtual host's most effective skill in keeping a team's momentum going.

Many people like positive reinforcement; use it to drive more participa-

tion. Don't wait for big milestones to recognize the contributions of participants. Even recognition as simple as thanking participants for sharing a thought, or for being the person to start or complete a task, will reinforce those behavior patterns.

Protip: Ensure the team sees the progress they are making toward objectives by creating a progress bar on your presentation materials or a chart of accomplishments to share periodically.

Get closure

Take time to wrap up the meeting. Clearly restate the purpose and how the objectives were accomplished.

If a decision was made, reiterate what it was and how it was made. State any next steps and who is responsible for them.

Thank the group for participating in the discussions and activities. Be sure to follow up on any unanswered questions and send meeting notes or thank-you notes.

Protip: Send clear instructions for any action items with due dates and links to any resources needed. This will make it easy for others to successfully accomplish their tasks.

Rinse and repeat

Always keep improving. The competition for people's attention in a virtual setting is tough. Ask for feedback to learn what works well and what may need adjustment.

You can collect feedback through surveys, casual conversations with participants or by listening for and observing responses in your meetings.

Leverage what's working well and quickly adjust or toss out what isn't.

Protip: Don't reinvent the wheel; leverage the success of others. Imitation is the sincerest form of flattery. □

Note: Dawson is a lead management and program analyst. Neville is a management analyst.



Decorate safely this holiday season

By Paul Robbins

W

ill you celebrate the holiday season by decorating your house, yard or tree? If so, remember a few safety tips that will help prevent injuries.

The Consumer Product Safety Commission estimates that hundreds of people visit the emergency room daily between November and December due to holiday-decorating injuries. A lack of safety while decorating can lead to back strains, falls, lacerations, puncture wounds and even ladder-related deaths.

Don't rush

Maybe you are excited about getting the decorations up, have a pending appointment or there is a stormfront blowing in and you are rushing to get the job done. Whatever the reason, rushing causes injury. Slow down and take the time to do the job right.

Climb safely

How many times have you grabbed a chair instead of a ladder when you needed to reach to a higher place? The National Safety Council reports that falls are the "third leading cause of unintentional injury-related deaths and the top cause of nonfatal injuries." Remember this the next time you reach for anything other than a ladder.

A ladder will get the job done more effectively and safely. When using a ladder, choose the right size, place it on a firm foundation, climb using three points of contact and never stand on the top rung or step. In addition,

always follow the manufacturer's guidelines for use.

Avoid distraction

There's that word again: distraction. It keeps coming up because distraction is such a big part of our lives and leads to so many types of injuries.

You might be putting up tree lights. Your phone rings and you automatically kneel and reach for it. "Pop!" You just knelt on a light bulb and cut your knee.

No matter what you are doing, distraction impairs situational awareness and the ability to recognize and react to hazards. Do all you can to avoid distractions and concentrate.

Do the lights right

Have you ever used a knife instead of a screwdriver or hammered with a wrench? Decrease the possibility of injury by using the proper tools and equipment when hanging lights and other decorations.

The National Fire Protection Association suggests checking light strings for damaged cords and loose bulb connectors before plugging them in. Never overload an extension cord with too many plugs. Do not hang lights or ornaments on the roof when it is wet or icy.

Also, if you need help, ask someone for assistance, especially when using a ladder.

Pick the right tree

When shopping for a tree, choose the greenest one possible. Brush the needles with your hand. If they are falling off, choose another. When you get the tree home, cut the trunk's base by two inches, place it in a stand, add water and refill it daily.

The NFPA suggests placing your tree at least three feet away from any heat sources, including candles, heater vents, fireplaces, outlets and lights. This does not include decorative tree lights, but the NFPA does advise that these lights be tested and cleared by a qualified, nationally recognized testing laboratory for decorative use. This information is usually listed on product packaging. The Underwriters Laboratories, for example, or UL for short.

Finally, as beautiful as your tree might be, don't forget to turn off the lights when you go to bed or leave home.

Celebrating the holidays is not as fun when you are recovering from an injury that resulted from decorating. Don't jeopardize your holidays. Think safety while decorating and also when you are taking the decorations down. □

Note: Robbins is a technical writer who works under the Cherokee Nation Strategic Programs contract.

Deputy Secretary of Energy visits WAPA

On Oct. 6, Department of Energy Deputy Secretary Mark Menezes visited WAPA's Headquarters in Lakewood, Colorado. During his visit, he sat down with Administrator and CEO **Mark A. Gabriel** for an hourlong talk that was livestreamed to all WAPA employees.

Typically, meetings such as this would have been held with a live audience. Due to the COVID-19 pandemic, however, precautions were taken to keep everybody safe. This included the lack of an audience, the wearing of facemasks and Gabriel and Menezes practicing social distancing.

The discussion covered a number of topics, including the DOE's response to COVID-19, the importance of vegetation management and the U.S.'s return to being number one in oil and natural gas production.

Employees had a chance to submit questions to Menezes, both before and during the meeting, and he responded to as many of them as time would allow.

After the meeting, Menezes toured the Electric Power Training Center in Golden.



Administrator speaks with SEPA TV

Administrator and CEO **Mark A. Gabriel** sat down with Smart Electric Power Alliance President and CEO **Julia Hamm** for a SEPA TV episode called “Building a Carbon-Free Future in the West with Hydropower.” The video is part of a SEPA TV series on technologies powering the transition to carbon-free energy.

SEPA describes itself as “a nonprofit organization that envisions a carbon-free energy system by 2050. We are one of many entities globally required to make this vision a reality.”

During the discussion, Gabriel shared his insights on hydropower and spoke about how WAPA is maximizing this resource through collaboration and new strategies.

View the discussion by visiting sepower.org/sepatv and scrolling to the Oct. 15 episode.





I2T Summit announces speakers

This year's Inclusion, Innovation and Technology Summit has announced the guests who will speak at the event.

Alexander Gates is the senior advisor of the Department of Energy's Office of Cybersecurity, Energy Security and Emergency Response. Prior to serving in this role, he worked as the deputy director for cyber in the DOE's Office of Intelligence and Counterintelligence, where he represented the department before fellow government agencies, the National Laboratories and the energy sector to solve complex problems related to cyber operations and security. He also served in both military and civil service capacities at the National Security Agency and the Department of Defense for nearly four decades.

Matt Leoni is the director of sales and customer service at Schweitzer Engineering Laboratories. Prior to serving in his current role, he contributed to field application engineering, team leadership and branch management. He has conducted seminars, workshops and SEL University courses on system protection and integration. He is a member of the Institute of Electrical and Electronics Engineers Industry Applications Society and a registered professional engineer in Colorado and Texas.

Barbara Sugg is the president and CEO of Southwest Power Pool. She started her career with SPP in 1997 as a software developer and served as senior vice president of information technology and chief security officer. In total, she has more than 30 years of IT experience in the electric utility industry. In 2018, she became a certified executive coach and helped found the Leadership Foundation for Women, a nonprofit focused on equipping women for success, based in Little Rock, Arkansas.

The event, with the theme Innovation Takes Everyone in a Changing World, will be held Nov. 18 from 12:30 – 4:00 p.m. Mountain time and Nov. 19 from 9:00 a.m. – 12:30 p.m. Mountain time.

Sign up to participate in the Innovation Challenge at signupgenius.com/go/10c0d4eaca72eabf8c16-innovation



Submit your suggestions for real-world issues facing WAPA to surveymonkey.com/r/2020ProblemSolicitationSurvey



Brief Transmissions

Reminder: Don't lose your leave

As the end of the calendar year approaches, remember that federal employees cannot accumulate more than 240 hours of leave. This includes employees on extended sick leave.

Unused leave may be carried over to the next year as long as it does not exceed the maximum of 240 hours. Any leave above that amount will be lost if it is not used.

As always, coordinate all time off with the appropriate supervisors and managers to ensure coverage during the winter holidays.



IT releases guide to WebEx updates

WebEx users have likely noticed a difference in the interface over the past month or so. Cisco, the company that makes WebEx, pushed out updates to the meeting platform beginning in September. By mid-October, there were three updates over a four-week period.

Cisco released a 150-page publication to help users navigate the new interface. WAPA Information Technology distilled that down to a more manageable document, highlighting the most-relevant changes.

Employees may read the full Cisco guide, but it will outline features not available to WAPA users. WAPA is restricted to using the Federal Risk and Authorization Management Program, or FedRAMP, version of WebEx, which is the standard used to ensure security and monitoring across federal systems. For security reasons, the release of features to the FedRAMP version is often delayed by several months.

To view the WebEx updates resource, go to **myWAPA, Telework Resources** and select "WebEx updates – Fall 2020" under Tool tips. If you still have questions after reviewing the guide, contact **Matt Goodwin** at goodwin@wapa.gov

